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ATG12 Antibody (N-term)

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP1151A

Specification

ATG12 Antibody (N-term) - Product Information

Application	**IF,E**
Primary Accession	O94817
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**8-38**

ATG12 Antibody (N-term) - Additional Information

Gene ID 9140

Other Names
Ubiquitin-like protein ATG12, Autophagy-related protein 12, APG12-like, ATG12, APG12, APG12L

Target/Specificity
This ATG12 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 8-38 amino acids from the N-terminal region of human ATG12.

Dilution
IF~~1:50~100

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ATG12 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

ATG12 Antibody (N-term) - Protein Information

Name ATG12

Synonyms APG12, APG12L

Function Ubiquitin-like protein involved in autophagy vesicles formation. Conjugation with ATG5 through a ubiquitin-like conjugating system involving also ATG7 as an E1-like activating enzyme

and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes.

Cellular Location
Cytoplasm. Preautophagosomal structure membrane; Peripheral membrane protein. Note=TECPR1 recruits the ATG12- ATG5 conjugate to the autolysosomal membrane

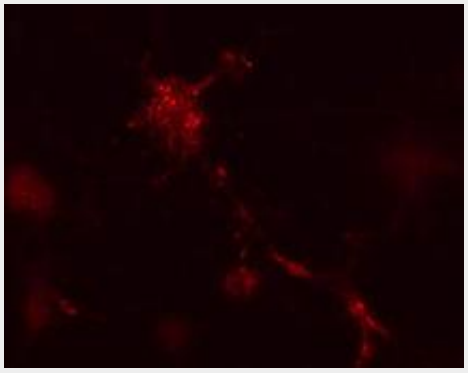
Tissue Location
Ubiquitous..

ATG12 Antibody (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATG12 Antibody (N-term) - Images



Mouse leukaemic monocyte macrophage cells treated with vinblastine for 1 hr. APG12L antibody (Cat AP1151a) detected punctuate staining indicative of nascent autophagic vacuole structures. Data courtesy of Dr. Barry Boland, Department of Pharmacology, Oxford University.

ATG12 Antibody (N-term) - Background

Macroautophagy is the major inducible pathway for the general turnover of cytoplasmic constituents in eukaryotic cells, it is also responsible for the degradation of active cytoplasmic enzymes and organelles during nutrient starvation. Macroautophagy involves the formation of double-membrane bound autophagosomes which enclose the cytoplasmic constituent targeted for degradation in a membrane bound structure, which then fuse with the lysosome (or vacuole) releasing a single-membrane bound autophagic bodies which are then degraded within the lysosome (or vacuole).

APG12L is the human homolog of yeast APG12, a ubiquitin-activating enzyme E1-like protein essential for the conjugation system that mediates membrane fusion in autophagy.

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ATG12 Antibody (N-term) - References

Tanida, I., et al., Biochem. Biophys. Res. Commun. 296(5):1164-1170 (2002).
Tanida, I., et al., J. Biol. Chem. 277(16):13739-13744 (2002).
Mizushima, N., et al., J. Biol. Chem. 273(51):33889-33892 (1998).
Ueno, K., et al., Hum. Genet. 102(1):63-68 (1998).

ATG12 Antibody (N-term) - Citations

- Immunohistochemical evidence for macroautophagy in neurones and endothelial cells in Alzheimer's disease.